

## ABSTRACT OF THE DISCLOSURE

Methods for high throughput assay of genetic analysis are provided. Genetic materials of either DNA or RNA are used as the template for primer extension using target specific primers. Following primer extension, the extended products with labeled nucleotides integrated are kept on the solid support and used for visualization and detection. As compared to other methods for genetic assay, this method is quick, reliable, and compatible with analysis of several genetic analysis including polymorphism, gene expression profiling, and sequencing.